



**IOWA**  
Department of  
Natural Resources

Environmental Management Systems Pilot Program

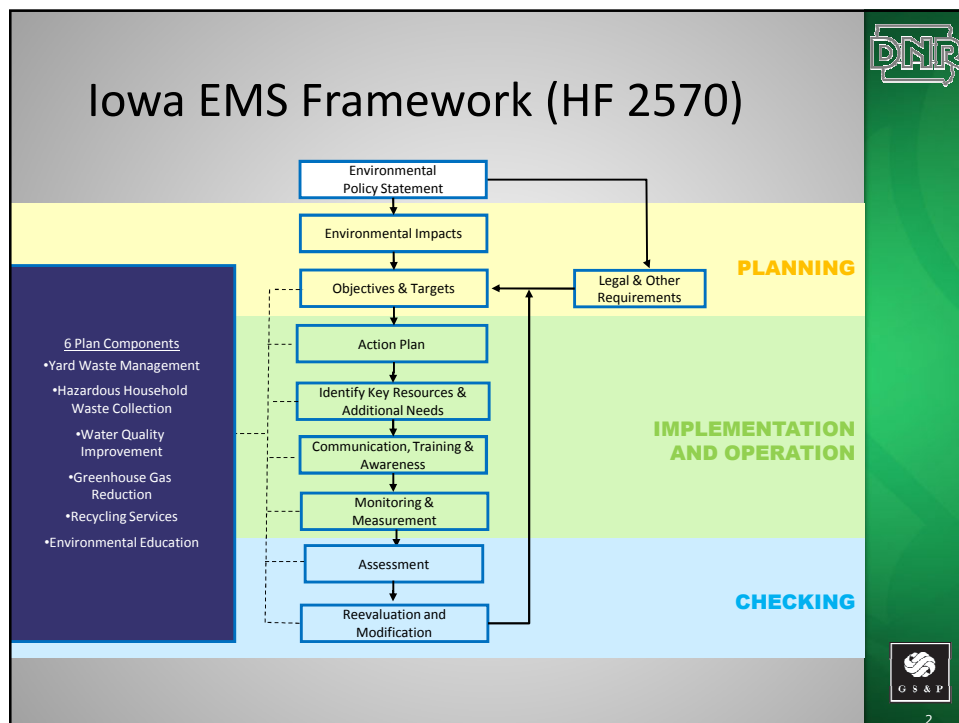
# Objectives and Targets Implementation

Kick-off Workshop  
November 17-18, 2009





**G R E S H A M  
S M I T H   A N D  
P A R T N E R S**



## Objectives and Targets Are Essential in Reducing Environmental Impacts

### “Typical” EMS Process for Adopting Objectives and Targets/Action Plan/Resources

- Identify Activities which Could Impact the Environment
- Assemble List of Environmental Impacts
- Develop a Process to Identify Significant Impacts
- Assemble List of Significant Impacts
- Set Objectives and Targets for Significant Impacts
- Develop Action Plans
- Identify and Obtain Resources
- Identify and Report Metrics Associated with Objectives and Targets and Action Plans
- Review and Report Progress



## Significant Impacts Example

Activity	Impact	Regulated	Community	Frequency	Score
Operate Diesel Equipment	Degradation of Air Quality	1	1	5	5
Stormwater Runoff from Composting Facility	Degradation of Surface Water Quality	3	1	5	15
Hazardous Waste Spills	Degradation of Soil	5	5	1	25
Solid Waste Disposal	Degradation of Air Quality	5	3	3	30

### Notes:

- Scores on 1,3,5 scale
- Create written criteria definitions for consistent scoring
- Sort scores from highest to lowest



## Reduce Greenhouse Gases by 5% by December 31, 2012

Action Item	Responsibility	Due Date
Collect Baseline GHG Emissions Information	Joe	10/1/2009
Publish Data on Website	Frank	11/1/2009
Convert Sedans to Electric	Norman	1/30/2010
Implement Biodiesel Program for On road fleet	Mary	3/15/2010
Investigate Methane Capture and Associated Costs	Lynne	9/30/2010
Implement Recycling Program	John	12/31/2011



## Reduce Greenhouse Gases by 5% by December 31, 2012



Action Item	Responsibility	Due Date	Status
Collect Baseline GHG Emissions Information	Joe	10/1/2009	Complete
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Implement Biodiesel Program for On road fleet	Mary	3/15/2010	On Track; Received Bids from Vendors
Investigate Methane Capture and Associated Costs	Lynne	9/30/2010	In Progress



**So Why Are We Addressing  
Objectives and Targets Before  
Identification of Significant  
Impacts**



## Two Important Exceptions

- ◉ Consider the Six Plan Components
  - Yard Waste Management
  - Hazardous Household Waste Collection
  - Water Quality Improvement
  - Greenhouse Gas Reduction
  - Recycling Services
  - Environmental Education

*These are Significant Activities and Impacts!*

- ◉ Potential Availability of Financial Resources for Assistance in the Development of the EMS and Objectives and Targets



## Introduction to Objectives and Targets



## Objectives and Targets (HF 2570)

- Establish Specific and Measureable Environmental Goals for the Organization for Each of the Six Plan Components
- Targets Must be Specific and Quantifiable



## Objectives and Targets

- Objective Definition
  - The Objective is the Environmental Goal
  - The Overall Environmental Change You Want to Achieve
- Target Definition
  - Detailed Performance Requirement
  - Specific Outcome of the Objective
  - Targets are Necessary for Achieving the Stated Objectives
  - Targets are a Measureable Outcome of the Change



## Examples

- *Reduce Greenhouse Gases by 5% by December, 31, 2012*
- *Implement an E-Waste Program by March, 15, 2011*
- *Reduce Water Consumption by 5% per Year*
- *Comply with Spill Prevention Control and Countermeasures Requirements by February 20, 2010*



## Objectives and Targets - Iowa

- ◉ Six Plan Components Must Have an Associated Objective and Target
  - Objective and Target May Address More than One Component
  - Example Objective-- HHW Disposal Workshop
    - ◉ HHW Collection-- Increase Collection by 5% by October 2012
    - ◉ Environmental Education-- Educate 100 Residents in Planning Area by January 2011





## Objectives and Targets Considerations

- Six Plan Components
- EMS Fenceline
- Environmental Policy
- Legal and Other Requirements
- Views of Interested Parties
- Is It Reasonable?
- Available Technology?
- Financial, Operational, Staff Resources Available?



## Objectives and Targets Considerations

- While Setting Objectives and Targets, Consider How You Will Monitor and Measure?
- Is There Baseline Data Available?
- Is There Environmental Performance I Want to Measure Outside of My Objectives/Targets?







## Building Objectives and Targets

- ◉ Identify Existing Objectives and Targets
- ◉ If You are Starting From Scratch, Begin with Each of the Six Plan Components
  - Identify Potential Objectives and Targets
  - Discuss with Responsible Staff Members
  - Consider Building a Team Around Each Objective and Target
    - Buy-In
  - Research Other Organizations
  - Gather Baseline Data, if Any
  - Draft Objectives and Targets; Review and Finalize with Management
  - Assign to Individual for Reporting Purposes



## Objectives and Targets– Best Practices

- ◉ Start with Existing Environmental Goals
- ◉ Set Objectives and Targets which are as Specific as Possible and Quantifiable
- ◉ Review and Receive Approval from Senior Management
- ◉ Be Practical, Understand your Organization's Limitations
  - Don't Over Commit
- ◉ Consider Availability of Baseline Information
- ◉ Ultimate Goal is to Reduce Environmental Impacts





## Objectives and Targets– San Diego

### 1) Fuel Use (Reduction)

- 1.1 - Heavy Equipment  
3% fuel use reduction in contracted heavy equipment.
- 1.2 - Stationary Equipment  
Review, and amend where necessary, operating procedures and maintenance activity to obtain optimum fuel efficiency.
- 1.3 - Support Vehicles  
5% fuel use reduction in Landfill Gas Management and Groundwater Monitoring programs.



## Objectives and Targets– San Diego

### 3) Resource Conservation Effort (RCE)

- 10% paper use reduction throughout division.
- Complete landfill gas to LNG pilot project implementation and start-up at Chollas Landfill.
- Complete landfill gas to energy feasibility study for Arizona Street landfill, select privatization vs. city operation, select firm if study data supports project.





## Objectives and Targets— King County

### Objective: Minimize air emissions

*Target: Conduct vehicle emissions tests in all vehicles three years or older and all gas vehicles (over a two-year period).*

*Target: Evaluate shop heating system for efficiency and emissions and develop alternatives where appropriate.*

### Objective: Reduce, reuse, recycle!

*Target: Provide in-house recycling at 100% of sites/locations.*

*Target: Reduce consumption of paper 10% in first year.*

*Target: Support the goals of the Transfer Station Recycling Team.*



## Objectives and Targets— Dallas

### OBJECTIVES AND TARGETS LIST

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Location : Sanitation

Record No.	Objective	Target	Person Responsible	Target Date	Completion Date
00523	Reduce petroleum-based spills caused by mechanical failure of Sanitation equipment	04/01/08	Cheritta Johnson	04/01/2008	05/09/2008
00566	Increase citizen waste diversion through citywide residential recycling program	04/02/07	Cheritta Johnson	04/02/2007	09/28/2007
00646	Ensure garbage truck beds and clean-out doors have watertight seals to minimize environmental impact from fluid leakage	06/2007	Doug Sizemore	06/29/2007	09/28/2007
00648	Implement procedures for the transportation and delivery of fuel to landfill equipment to minimize the potential of spillage and injuries	06/07	Ronald Smith	06/30/2007	09/28/2007





## Objectives and Targets– Dallas

### Preventable Spillage and Injuries

Ensure dead animals are picked up and transported within 24 hours	01/07	Cheritta Johnson	01/31/2007	06/20/2007
Ensure that hazardous waste brought to waste facilities is delivered to HHW Center safely.	12/08	Stanley Davis	12/31/2008	09/28/2007
Prevent fires on garbage trucks through education of the public on what items are prohibited from regular garbage pick-up.	12/07	Cheritta Johnson	04/30/2008	05/09/2008
Reduce indoor dust at the Transfer Stations to improve air quality. Reduce outdoor dust occurring on the unimproved roadways at the Landfill; improve air quality and visibility.	12/07	Ronald Smith	12/31/2008	05/09/2008
Eliminate Administrative Notices of Enforcement (NOE) (Citywide)	Zero Administrative NOEs	Carlissa Ailey	10/14/2012	
Decrease the Number of Petroleum-based Spills Caused by City Operations (Citywide)	Reduce the number of Preventable and Reportable spills by 15%.	Carlissa Ailey	12/31/2012	



## Action Plan



## Action Plans

- ◉ Road Map for Achieving the Objectives and Targets
  - Can Be As Specific or as General According to Organizational Needs
- ◉ Listing of Specific Tasks or Activities with Assigned Responsibilities and Associated Due Dates
- ◉ Consider Needed Resources
  - Financial, Staff, Equipment, Etc.
- ◉ Action Plan Items May Require Input from External Parties (Outside Fenceline)
  - Consider Ability to Control Schedules and Priorities



## Action Plans

- ◉ Set Action Plans for Each Objective/Target
  - Responsible Person/Is there a Team or Committee?
  - Schedule with Steps for Implementation
  - Monitoring and Measurement
  - Costs
- ◉ Determine a Schedule and Method for Periodic Review/Update
- ◉ Don't Forget to Document the Action Plan with Objectives and Targets



## Reduce Greenhouse Gases by 5% by December 31, 2012

Activity	Responsibility	Due Date
Collect Baseline GHG Emissions Information	Joe	10/1/2009
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Implement Recycling Program	John	12/31/2011



## Action Plans

- If You Have a Multi-Departmental or Multi-Organization Objective/Target
  - Identify Existing Committee or Work Group that Can Facilitate the Action Plan Item
    - Or Develop a Committee
  - Identify Responsible Individual(s) by Organization
  - Schedule Regular Meetings or Reporting
  - Keep Meeting Minutes To Track Progress, Assignments, and Commitments
  - Discuss and Resolve Monitoring and Measurement Data
  - Elevate When Necessary





## Action Plan Implementation


- Implement a Process for Reporting and Tracking
  - Keeps the EMS and Objectives and Targets on Track
  - Allow for Reassignment if Needed
  - Require Reporting on a Schedule
    - Monthly, Quarterly, Semi-Annually
  - Especially Important for Action Items that Are in Sequential Progression
- Update Objectives and Targets and Associated Action Plans as Needed



## Action Plans– Best Practices

- Make the Action Plans Work for Your Organization
  - Consider Amount of Detail and Information in the Action Plan to Achieve the Desired Result
- Evaluate Existing Management and Reporting Tools to Achieve the Action Plan Items
  - Don't Re-Invent the Wheel






**Target:** Complete Ticket less Transaction for Commercial Haulers Pilot Project and implement other waste haulers as soon as possible thereafter.


**Target Completion Date(s):** May 12, 2001 for Waste Management of CA. Other waste haulers by May 2002.

**Action Plan:** Complete Waste Management of CA Pilot Project and initiate full implementation, install bar-code guns in fee booths and bring City Forces and Waste Management Trucks on-line, look at potential for implementation of other private haulers.

**Responsible Person(s):** Fiscal Services Manager

**Resources Required:** Pilot Program was budgeted prior to EMS implementation. There will be no immediate costs associated with expanding Pilot Program.






**Location: Sanitation**

Record No.	Objective	Target	Person Responsible	Target Date	Completion Date
566	Increase citizen waste diversion through citywide residential recycling program	04/02/07	Cheritta Johnson		



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**ENVIRONMENTAL MANAGEMENT PROGRAM**

EMP No.	EMP Description	Completion Notes	Person Responsible	Target Date	Completion Date
00002	Continue Public Education campaign via mailouts, pamphlets, homeowner's association meetings and/or workshops.	1st qtr - Received 38,487 roll cart request & delivered 22,000 carts. Gave away 185,580 recycling bags to residential customers. Hired 21 (of the 22) new recycling collection employees. Leased & received 18 (out of 22) new recycling collection trucks. Increased recycling tonnage by 20% (from 2,359 to 2,842) compared to same quarter in FY 05-06. Completed Phase II of the "Big Blue" public outreach campaign.	Sherlyn McAnally	01/31/2007	12/31/2006





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Location: Sanitation					
Record No.	Objective	Target	Person Responsible	Target Date	Completion Date
912	Reduce pollutant load	5% reduction in stormwater pollutant	Adam Jochelson		
ENVIRONMENTAL MANAGEMENT PROGRAM					
EMP No.	EMP Description	Completion Notes	Person Responsible	Target Date	Completion Date
00003	Collect stormwater samples and submit for lab testing.	<p>Jan - June 2008 samples collected. Benchmark values for iron and TSS dropped dramatically. Iron 0.09 and TSS 246.6</p> <p>July - Dec 2008 lab samples: Iron 70.65 TSS 4768.0</p> <p>Jan - June 2009 lab samples: Iron 71.12 TSS 1791.0</p>	Adam Jochelson	09/30/2009	06/30/2009
00004	Compare lab results to baseline.	<p>Iron load decreased at a rate of 14.9%</p> <p>TSS load decreased at a rate of 2.2%</p>	Adam Jochelson	09/30/2009	09/30/2009
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## Objectives, Targets and Action Plans—Exercise

- You are the EMS Core Team Developing an EMS in Your Household. Use the Following Activities and Impacts to Develop Objectives and Targets with Associated Action Plans for Each...Keeping in Mind the Six Components of an EMS. Fill in as Many as You Can.
  - Washing Dishes
  - Mowing the Lawn
  - Waste Generation
  - Use of Lighting



**Report Out**



**Identify Key Resources and  
Additional Needs**

## Identify Key Resources and Additional Needs

- ◉ For Action Plans Associated with Objectives and Targets, Identify Resources
  - Costs
  - Staff
  - Equipment
  - Partners
  - Skills
  - Facilities



## Identify Key Resources and Additional Needs

- ◉ Update Action Plans and Objectives and Targets as Additional Information Becomes Available
  - Grants Not Available
  - Changing Budgets
  - Technology Costs Higher than Expected
  - Staff Availability Changes




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Record No.	Objective	Target	Person Responsible	Target Date	Completion Date
523	Reduce petroleum-based spills caused by mechanical failure of Sanitation equipment	04/01/08	Cheritta Johnson		
ENVIRONMENTAL MANAGEMENT PROGRAM					
EMP No.	EMP Description	Completion Notes	Person Responsible	Target Date	Completion Date
00002	Perform root cause analysis	1st qtr - 33 spills 2nd qtr - 24 spills 3rd qtr - 33 spills 4th qtr - 36 spills	Carlissa Alley	11/30/2006	09/28/2007
00004	Keep vehicles clean with routine washing.	This employee is no longer with the department. This EMP will be reassigned during the next review of objectives & targets.	Zachary Guthrie	04/30/2007	10/19/2007






Record No.	Objective	Target	Person Responsible	Target Date	Completion Date
911	2011 Reduce air emissions from the use of heavy equipment used to process and cover waste.	5% reduction in air emissions	Adam Jochelson		


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ENVIRONMENTAL MANAGEMENT PROGRAM					
EMP No.	EMP Description	Completion Notes	Person Responsible	Target Date	Completion Date
		Due to budget concerns in FY 2009 we had to defer 4 major overhauls until FY 2010. In the upcoming FY we will rebuild 4 landfill compactors, one wheel tractor scraper and two track type tractors. Only one of these machines will receive a re-power that significantly lowers emissions over its			




**Reducing Environmental Impacts  
is the Main Focus of the EMS =  
This is Achieved Through  
Objectives and Targets and Action  
Plans**

## Objectives and Targets Key Resources Discussion



**IOWA**  
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Natural Resources

QUESTIONS?



GRESHAM  
SMITH AND  
PARTNERS